



With the Medical Officer of Health's
Compliments.

GUILDHALL,
GLOUCESTER.



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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

CITY OF GLOUCESTER

FOR 1905.

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TO THE CHAIRMAN AND MEMBERS OF THE
SANITARY COMMITTEE.

GENTLEMEN,

I beg herewith to submit the Annual Report for the year ending December 31st, 1905, in compliance with the requirements of the Local Government Board.

Dr. Campbell, your former Medical Officer of Health, has furnished me with the materials required for the portion relating to the first quarter of the year.

I am much indebted to the City Surveyor for his kind assistance in preparing the first portion of the Report dealing with the water supply and system of sewerage. I have to thank all the present and also former members of the Committee for their assistance in carrying out the duties of my office, duties that would have been much more difficult to discharge without such assistance.

I am, Gentlemen,

Your obedient Servant,

WILL. M. HOPE, D.P.H.,

Medical Officer of Health.

January 26th, 1906.

REPORT.

GLOUCESTER, situated in the vale of the Severn, occupies rising ground on the east bank of the eastern arm of that river. The Cross is 66 ft. above O.D., the top of Wotton pitch 78 ft., and the junction of Starveall and Waterpool Lanes 144 ft. above O.D.

The site is shown in the Ordnance Survey as being on the lower lias clay, but this does not take into account the beds of drift gravel and sand overlying the deeper formation. These beds render the site a good one, and as there is an ample and good water supply from outside the City, there is no need to make use of the old shallow wells (most of which have been closed), a dangerous source of supply in such soil. In other parts there are patches of river silt and of boulder clay.

In recent years the large fringe of outside district taken into the City has afforded good sites for building purposes, and the erection of new and improved dwellings for the artizan class has relieved the former density of population in the older districts. There are none of the “rookeries” to be found in some towns, although some of the courts require improving; but as the result of the continued efforts of the Sanitary Committee, the former defects to be found in the older parts are being done away with.

The erection of new buildings is under the supervision of the City Surveyor, and a special building inspector examines and tests the drains and reports to the Improvement Committee.

The system of SEWERAGE may be briefly described
as follows :—

The three main lines follow the valley lines of the three natural watercourses, the Twyver, the Sudbrook and the Tweenbrook, which originally traversed the City, and which still carry off the flood water. Since 1886 many improvements have from time to time been made, relaying and enlarging the sewers and laying down new ones. Some of these improvements having been made during this year (1905). And since the extension of the City in 1900, very great additions to the system have been made, the total length of sewers in the City being over 45 miles. The system adopted for ventilating the sewers is by man-holes on the street level and 4-inch and 6-inch shafts, which are put up wherever permission can be obtained. Over 600 of these shafts have been put up and the number is being increased on every available occasion.

In accordance with the Bye-laws, sanctioned by the Local Government Board, the house drains are separated from the sewers by an “intercepting trap,” and where possible provided with man-holes at the traps and at important junctions on the drains, the soil pipes constituting the exit ventilating shafts for the house drains.

The closets are flushed by cisterns 18" x 9" x 7", containing two or more gallons.

Thus the method of disposal of the sewage is by water-carriage, the outfalls being into the Severn, which at the City is a tidal river, the tides flowing for over 12 miles above the City.

House refuse is collected three times a week from every house and conveyed to the Refuse Destructor. The amount at present varies from 150 to 200 tons per week. This system would work still better if all householders would use portable galvanized iron sanitary bins, instead of receptacles of a very miscellaneous character as at present.

The WATER SUPPLY is derived from three sources :

1. Robinswood Hill on the south-eastern boundary of the City is an outlier of the Cotswold range, having a slight capping of inferior oolite and mitford sands, and forms a gathering ground for the springs thrown out by the lias clay below. These springs are collected by conduits running round the contour lines of the hill and discharging into the reservoirs 150 ft. above O.D., and having a storage capacity of some 11 million gallons.

2. The Waterworks at Witcombe, some 5 miles eastward from the City, are 300 ft. above O.D. Here there is a watershed area of 1,500 acres formed by an escarpment of the Cotswold range, consisting of inferior oolite, mitford sands, upper lias clay, marlstone and lower lias clay in descending order. The water collected in this area falls into No 1. reservoir by seven streams, which pass through settling tanks and rough filter beds before entering the reservoir, and is then decanted into the other two reservoirs, which are 2 ft. and 4 ft 6 in. below it respectively, when all are full. All three reservoirs are constructed in the lower lias clay, and have a total capacity when full of 120 million gallons.

Both at Robinswood Hill and Witcombe the water is filtered by means of Bell Bros.' mechanical filters before passing into the mains. These filters act both bacteriologically and chemically, and only create a loss of 2 lbs. pressure between the inlet and outlet of the filter.

Samples are taken fortnightly from the inlets and outlets of the filters, and examined chemically and bacteriologically by the City Analyst. His reports show that the filters fulfil their purpose, the water being sent to the City clear, bright and in good condition.

The supply from the above sources proving inadequate as the number of houses increased, an Act of Parliament was obtained in 1894 for the purpose of obtaining a supply of water

from Oxenhall, near Newent, 11 miles west of the city. Here a well has been sunk 170 ft. into the new red sandstone, from which headings have been driven north and west. An abundant supply has thus been procured, which is pumped into two reservoirs 3 miles from the pumping station, nearly 200 ft. above Gloucester Cross. From thence it gravitates 8 miles to Gloucester by a 14 in. main. Except that this is a hard water, it would be perfect.

From these three sources the City obtains a good and sufficient supply of water, which is maintained at about 22 gallons per head per day, on a total population of 55,000, including the outside population supplied.

The Witcombe and Newent waters coming into the City from opposite sides mix together to a certain extent in the distributing mains.

The rainfall at Witcombe for 1905 was 28·29 inches.

VITAL STATISTICS.

The population of the City, as estimated to the middle of 1905, is 51,098, and the deaths at all ages of both residents and non-residents registered in the City amount to 763, giving a death-rate of 14·9. The deaths of residents only, dying in or outside the City, was 737, giving a death-rate of 14·4. In two former years only was there a lower death-rate, viz., in 1901 and 1903 (*vide* Table I.). Among these 737 there were 163 deaths of persons over 70.

Ages	70 to 75	75-80	80-85	85-90	90	91	93
Deaths	51	51	31	24	1	1	4

The group of the seven forms of disease that is generally called the Zymotic group is responsible for 62 deaths, being 1·21 per thousand.

The deaths under 1 year amount to 167, giving a rate per 1,000 births of 120·9, which is below the average for the past 10 years, but still a greater mortality than should exist.

This year there is a special official Table, No. V., in addition to the usual tables, which sets out in detail the causes of the deaths of infants from birth up to 12 months, arranged in various age groups.

On considering this table and putting on one side the premature births (31) it is seen that the chief causes of deaths in infants can be arranged in three classes :—

a.	Bronchitis and Pneumonia	...	34 deaths
b.	Debility and Marasmus	...	29 deaths
c.	Diarrhoea and Enteritis	...	19 deaths

The births for 1905 amount to 1,381, being a rate of 27·0, which, although an increase on that of 1904, is below the former average, and on turning to Table I., it will be seen that the birth-rate has been slowly declining since 1900.

The statistics for the various localities are set out in Table II., and the only note that need be made is that the population of the Barnwood City district is so small that it is of no value for separate statistical purposes, and is only kept separate as it is a separate registration district.

DEATHS AT ALL AGES.

				1901		1902		1903		1904		1905
Influenza	...	...	...	5	...	6	...	6	...	1	...	22
Phthisis	...	...	...	67	..	53	...	39	...	46	...	55
Other Tubercular Diseases	...	...	...	38	...	48	...	42	...	40	...	32
Bronchitis	...	...	..	75	...	115	...	63	...	79	...	78
Pneumonia	...	..	...	25	...	46	...	30	...	42	...	63
Heart Diseases	...	...	...	66		58	..	60	...	72	...	57
Cancer and Malignant Disease				43	..	37	...	28	...	30	...	33

The above table of the causes of death from certain diseases during the last five years shows that Influenza has been more prevalent than usual. Eleven of these deaths were those of persons over 65.

Of the Bronchitis deaths 32 were over 65 years of age.

The increase in the deaths from Pneumonia is due to deaths from Pneumonia or Broncho-pneumonia during the first two years of life.

There is no increase in the deaths from Cancer nor in those from Tuberculosis.

The following table published by the Registrar-General for the convenience of Medical Officers of Health, was prepared for his quarterly return, the figures being subject to revision.

ENGLAND AND WALES, 1905.
ANNUAL BIRTH RATES AND DEATH RATES.

	Annual Rates per 1000 living.			Infant Mortality. Annual Death Rate of Infants under 1 year per 1000 Births
	Births	Deaths from all Causes	Deaths from Seven Chief Epidemic Diseases	
England and Wales ...	27·2	15·2	1·52	128
76 Great Towns ...	28·2	15·7	1·88	140
141 Smaller Towns ...	26·9	14·4	1·50	132
England and Wales, less the 217 towns ...	26·3	14·9	1·09	113

CASES OF INFECTIOUS DISEASES

Notified during 1905.—*Vide* Table III.

Including 88 cases of Chicken-pox, the total number of cases was 277.

DIPHTHERIA.—Twelve cases were treated at home with one death. Ten cases were treated at the City Hospital with no death, and with the exception of two cases, were of a mild type, tracheotomy being required in one case only. The average stay in hospital was 16 days.

SCARLET FEVER.—Out of 120 cases notified, 102 cases were admitted into the hospital, a percentage of 76·6.

Among the 18 cases left at home there were three deaths, a percentage of 16·6, the three deaths in hospital out of 102 cases being a percentage of 3·2. The average stay in hospital of the cases that recovered was 46·6 days; of the fatal cases 14 days.

Scarlet Fever of late years has generally been of a comparative mild type, and so there has been a tendency to lose sight of the fact that at times it is a very serious and fatal disease.

There would not have been so many cases of this fever if some parents had not been remiss in notifying the existence of the disease in their children, in some cases perhaps from ignorance, but in others, I regret to say, wilfully.

There have been several occasions on which the existence of the disease was not ascertained until the cases were desquamating. In one case the child was found "peeling" while at school, and this child infected at least five others.

On referring to Table III., it will be seen that 119 cases of Diphtheria and Scarlet Fever occurred in children under 15 years of age, but as there were 9,448 children on the books of the elementary schools alone in the City at the end of the year, the attack rate of these two diseases would only be about 1 per cent.

TYPHUS FEVER.—One notification was received, but the true nature of the case was extremely doubtful and recovery was very rapid.

TYPHOID OR ENTERIC FEVER.—Eighteen cases were notified, and 10 of them were admitted into the General Infirmary, one case being fatal. Of these 18 cases, 3 came to the City in the early stages of the fever. In 4 others it was highly probable that the infection was acquired outside the City. One case was infected while attending to a friend suffering from the fever before removal to the Infirmary. In two cases the cause was traced to drinking river water, and in 3 cases the sanitary arrangements of the houses were bad, and when this is the case, articles of food, especially milk, are liable to become contaminated with the typhoid poison. But in no case was there the slightest cause to suspect the City water supply as being the cause of the infection.

PUERPERAL FEVER.—Three cases were notified, two of them being fatal.

ERYSIPELAS.—The only note to be made of the 25 cases is that they were mostly of a mild character, without a death.

MEASLES.—Eighteen deaths were registered, 16 of them between 1 and 5 years of age. Up to the present the Medical Officer has had no means of ascertaining the existence of cases of Measles, except when a death takes place. In the coming year, however, arrangements are to be made by which he will receive information of cases amongst children attending the elementary schools, from the head teachers and school attendance officers, and also of cases of Whooping Cough and Mumps (Chicken-pox being a notifiable disease in this City).

After enquiry has been made into the cases the head teachers will be advised as to what periods of quarantine are necessary in the cases of infected children or children from infected houses. The opportunity will also be taken of leaving a leaflet at the houses giving simple advice to the parents, who so often do not realize that Measles is at times a most serious disease in young children.

THE METHOD OF DEALING WITH INFECTIOUS DISEASES

Is as follows : On receipt of a notification the house is visited, and if it is a case for removal to hospital, this is done forthwith, the bedding and other infected articles being removed to the steam disinfecter and the rooms disinfected with formic aldehyde. Then the sanitary arrangements are thoroughly examined, and any defects discovered put right.

Where it is not requisite to remove the case a leaflet is left giving instructions as to the precautions that should be taken and an Inspector repeatedly calls to see that the instructions are attended to.

In all cases where a child is ill or in an infected house, notice is sent to the head teacher of the school attended by such child, and when the child is fit to return to school, another notice to that effect is sent.

Notice is also sent to the Librarian at the Public Library, and should any books have been lent they are sent to the Isolation Hospitals.

ISOLATION HOSPITALS.

THE FIELD FARM HOSPITAL (Small-pox only) has not been required this year. This Hospital is a little over two miles from the Guildhall, and has accommodation for 20 patients. It is kept in readiness so that patients can be taken in at any time, on a couple of hours' notice. There is ample room on the site for erecting temporary buildings or tents on an emergency.

THE CITY HOSPITAL at Over is about a mile and a half from the Guildhall, and has accommodation for 40 patients in three pavilions, a number just sufficient for dealing with cases of infectious diseases (other than Small-pox) arising in the City.

During the year 10 cases of Diphtheria and 102 cases of Scarlet Fever were admitted from the City, and two cases under arrangement with the Gloucester Rural Sanitary Authority, but it will only be occasionally that there will be beds available for any but City cases.

There is an efficient nursing staff, consisting of a matron and charge nurses, who are fully trained, and probationer nurses, and these nurses will be available for duty at any of the Isolation Hospitals.

THE DISINFECTING APPARATUS is of Alliott and Paton's type of Lyons Disinfector, and is used for disinfecting articles from infected houses in the City as well as for hospital purposes.

COMMON LODGING HOUSES.

There are nine of these houses, all of them being situated in or near Lower Westgate Street. There has been no case of infectious disease in any of them. They are kept in very fair order by the proprietors, who have always been willing to give any information that may be required. As a number

of tramps are sent to these houses by the Workhouse Authorities, special attention has to be paid to them lest disease should thus be brought into the City.

HOUSES LET IN LODGINGS.

There are four of these registered, and supervision is also kept over them.

HOUSING OF THE WORKING CLASSES.

During the year it has not been necessary to apply for any closing orders.

SYSTEMATIC HOUSE-TO-HOUSE VISITATION.

During the year this work has been kept up by the Medical Officer of Health and the Sanitary Staff, 731 houses having been dealt with. It is found that the best system to adopt is to select small areas at a time, and, when necessary, to serve preliminary notices on the owners of property, and then follow this up by repeated visits until all defects are remedied.

OFFENSIVE TRADES.

The various places where these trades are carried on have had attention paid to them. One place in the Island used for melting and extracting fat is at times offensive, though considerable improvement has been noted since special apparatus has been erected. The other places have not been a source of nuisance during the year, namely, a skin-splitting factory and a wool-staplers' place at the Quay and the various tripe boilers.

There has also been no complaints as regards the shops where fish-frying is carried on, these shops being much improved during the last two years.

SLAUGHTER HOUSES.

There are some 30 places where animals are slaughtered. A few come up to a moderate standard, and most of the

principal butchers do their best to keep the houses clean and in as good order as possible. But many of them are in a most unsuitable state, and as long as private slaughter houses exist so long will it be difficult to carry out an effectual system of meat inspection.

THE DAIRIES, COWSHEDS AND MILKSHOPS ORDERS, 1885 & 1886.

The milkshops, 103 being on the register, are inspected from time to time, 7 have been given up during the year and 9 added to the list.

There are 27 purveyors of milk within the City, residing outside, on the register, 4 having been added during the year. In the City there are only 3 cowsheds, these being in a portion of the district added to the City at the last extension. These are in a most unsatisfactory condition, so that it is as well that they are only used in severe weather and at milking time. In two cases the milk is distributed to customers at once, in the third there is a dairy which is in a good and cleanly condition.

Your Inspector's report, which is appended, gives full details of these cowsheds.

SALE OF FOOD AND DRUGS ACTS.

The following is a list of samples taken during the year, and handed to the City Analyst for analysis :—

Milk	...	...	56	samples
Butter	...	...	33	„
Beer	...	...	20	„
Coffee	...	...	6	„
Sweet Spirit of Nitre			20	„

In no case was his report such as to warrant any legal proceedings being taken, although in several cases he reported that the samples of milk were of a poor quality.

While it may be said that most of the milk on sale comes up to the ordinary standard, there is none that reaches a high standard, judging from the samples that have been taken. In some cases both butter and milk is coloured.

On two occasions consignments of unsound fruit were seized and destroyed on a magistrate's order.

No unsound meat was seized during the year.

SMOKE NUISANCES.

This has been much in evidence, especially during the last quarter of the year, when regular "smoke observations" were taken by your Inspectors. In the case of one firm where not only black smoke but quantities of only partly consumed fuel were emitted from the chimney stack, the nuisance was intolerable to the residents in the neighbourhood. However this firm and others on being written to on the subject have replied to the effect that steps would be taken to improve the state of affairs.

CANAL BOATS.

No case of infectious disease has been introduced into the City by these boats. When in the district the boatmen do not live on board, but in a very fair class of house. The report of your Inspector giving various details is appended. No amount of inspection on his part can prevent the boatmen taking more than the authorized number of persons on board after leaving the City district, and this is often a subject of complaint from other Authorities.

MIDWIVES ACT, 1902.

During the year 29 women whose names appear on the Midwives Roll gave notice of their intention to practice in the City. In the case of 20 of these, the only qualification appearing against their names on the roll is that they were acting as midwives in July, 1901. A circular was sent out by the

Medical Officer of Health, on behalf of the Sanitary Committee, to these women, calling their attention to the main points in the rules of the Central Midwives Board and giving simple instructions as to the use of antiseptics, and as to the cleansing of the midwife's hands. They have also been visited and urged to attend to these most important matters. In several cases the sanitary arrangements of the houses in which they lived required putting in order. Some of these women were found to be quite ignorant and with no idea of ordinary cleanliness.

WINSLEY SANATORIUM.

This Sanatorium was opened for the reception of early cases of Phthisis at the end of March. Three patients were selected by the Sanitary Committee for treatment there. Two of these have returned, having received very great benefit from the treatment, and one is still under treatment.

FACTORY AND WORKSHOP ACT

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories, including Factory Laundries ...	351	14	0
Workshops, including Workshop Laundries	890	49	0
Workplaces	106	6	0
Homeworkers' Premises	95	0	0
Total	1442	69	0

2.—DEFECTS FOUND.

Particulars.	Number of Defects.									
	Found. Remedied.						Referred to H.M. Inspector.	Prose- cutions.		
<i>Nuisances under the Public Health Acts—</i>										
Want of cleanliness	20	...	20	...	0	...	0
Want of ventilation	3	...	3	...	0	...	0
Overcrowding	2	...	2	...	0	...	0
Want of drainage of floors	0	...	0	...	0	...	0
Other nuisances	10	...	10	...	0	...	0
Sanitary accommodations insufficient				14	...	14	...	0	...	0
„ unsuitable or defective				42	...	42	...	0	...	0
„ not separate for sexes				0	...	0	...	0	...	0

Standard of sufficiency, one closet to 25 or under.

Section 22 of Public Health Acts Amendment Act in force here.

Offences under the Factory and Workshop Act—

Illegal occupation of underground bakehouse (S. 101)	0	0	...	0	...	0
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ...	15	15	...	0	..	0
Failure as regard lists of outworkers (S. 107)	24	24	...	0	...	0
Giving out work to be done in premises which are unwholesome (S. 108) ...	0	0	...	0	...	0
Ditto in premises infected (S. 110) ...	0	0	...	0	..	0
Allowing wearing apparel to be made in premises infected by scarlet fever or small-pox (S. 109)... ..	0	0	...	0	...	0
Other offences	2	2	...	0	...	0
Totals	132	132		0		0

3.—OTHER MATTERS.

Class.	No.
<i>Matters notified to H.M. Inspectors of Factories—</i>	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	20
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)—Notified by H.M. Inspector	8
Ditto—Reports (of action taken) sent to H.M. Inspectors	5
Other	4
<i>Underground Bakehouses (S. 101)—</i>	
Certificates granted during the year	0
In use at the end of the year	2

							Number of Lists. Outworkers.		
Homework. Lists of Outworkers (Sec. 107)—									
Lists received	...	...	...	...	...	...	42	...	196
Addresses of outworkers forwarded to other Authorities	...	...	...	...	...	...	5	...	6
Ditto received from other Authorities	...	...	...	...	...	...	0	...	0

						Wearing Apparel.	Other.
Homework in unwholesome or infected premises--							
Notices prohibiting homework in unwholesome premises (S. 108)	...	...	...	...	...	0	0
Cases of infectious disease notified in homeworkers' premises	...	...	...	...	...	0	0
Orders prohibiting homework in infected premises (S. 110)	...	...	...	...	...	0	0
Workshops on the Register (S. 131) at the end of the year	...	...	...	...	...	...	227
Bakehouses	...	...	...	...	...	...	77
Total number of workshops on Register						...	304

The Report of the special Inspector of Factories and Workshops is appended, and in it will be found fuller details of the defects found and remedied during the year.

BAKEHOUSES, of which there are 71 in the City, have been personally inspected. The two underground ones, which hold certificates, are kept in good sanitary condition.

Several workshops also have been visited where special attention was required on sanitary grounds.

W. M. HOPE, D.P.H.,
Medical Officer of Health.

January 4th, 1906

FACTORY AND WORKSHOP ACT, 1901.

During the year periodical visits have been paid to all places where labour has been employed. It is pleasing to be able to state that on the whole the Factories and Workshops in Gloucester are in a very satisfactory condition. Any defect or nuisance that has been found to exist has been promptly remedied without the slightest friction.

Home-workers' premises have received careful attention, but there has been found very little cause for complaint, and in no instance was infectious disease found to exist.

The owners of two Factories have, after some alterations to their respective premises, been granted certificates as to facilities for reasonable means of escape in case of fire.

A record of the principal defects found to exist in Factories and Workshops and the remedies adopted is appended.

Feb. 10.—*Tailor, etc.* Foul and broken water closet pans. New pedestal and cottage pans provided.

Feb. 22.—*Locksmith.* Defective w.c. with insufficient flushing apparatus. Pedestal closet and flushing apparatus provided.

Feb. 22.—*Cabinet Makers.*—No sanitary accommodation nor drinking water provided. Drain, pedestal closet and lavatory provided. City water laid on.

Mar. 8.—*Stone Yard.*—No sanitary accommodation. Drain and two pedestal closets provided. City water laid on.

Mar. 8.—*Railway Yard.* Insufficient sanitary accommodation. Drain and urinal provided.

Mar. 8.—*Joiner.* No water supply to closet. Water supply to closet provided.

Mar. 21.—*Photographer.* No sanitary accommodation. Drain and two pedestal closets provided.

Mar. 30.—*Iron Foundry.* Defective flushing apparatus. New apparatus provided.

April 1.—*Bootmaker.* Defective w.c. w.c. repaired.

April 1.—*Contractor.* No sanitary accommodation. Drain and pedestal closet provided. City water laid on.

April 13.—*Corn Mill.* Drain choked. Drain cleared.

April 15.—*Sorting Stores.* No sanitary accommodation. Pedestal closet and lavatory basin provided.

April 29.—*Dressmaker.* Drains choked. Drains opened and cleared.

May. 4.—*Wicker Worker.* No sanitary accommodation. Drain and w.c. provided.

May 5.—*Tailor.* Nuisance caused by keeping dogs in room underneath workshop. Dogs removed and room disinfected.

May 8.—*Parchment Works.* w.c. foul and choked, no flush to same. w.c. cleared and cleansed, flushing apparatus provided.

May 10.—*Engineering Works.* Unsuitable sanitary accommodation. Drain and three self-acting pedestal closets provided.

May 11.—*Saw Mills.*—Earth closets foul and dilapidated. Earth closets cleansed and repaired.

May 11.—*Boat Builder.* Dilapidated state of earth closet. Earth closet repaired,

- May 12.—*Wheelwright*. w.c.'s foul and unflushed. w.c.'s cleansed and flushing apparatus provided.
- May 12.—*Brass Foundry*. Defective flushing apparatus. New apparatus provided.
- May 12.—*Bottling Works*. Urinal very foul. Urinal cleansed.
- May 16.—*Flour Mills*. No flushing apparatus to w.c. Flushing apparatus provided.
- May 16.—*Sail Maker*. w.c. choked. Drain opened and closet cleared.
- May 17.—*Dressmaker*. Drain choked. Drain opened and cleared.
- May 22.—*Locksmith*. No flushing apparatus to w.c.; no drinking water. City water laid on and flushing apparatus provided.
- May 27.—*Wire Worker*. No sanitary accommodation. Drain and pedestal closet provided.
- May 28.—*General Smith*. No sanitary accommodation. Drain and pedestal closet provided.
- May 29.—*Brush Works*. Insufficient sanitary accommodation. Extra w.c. provided.
- June 10.—*Wheelwright*. Smoke nuisance from stack being too low. Chimney stack raised.
- June 10.—*Railway Yard*.—Defective drain and w.c. Drain re-laid and new w.c. provided.
- June 19.—*Railway Yard*. Nuisance caused by manure. Manure removed.
- June 16.—*Dye Works*. Imperfectly trapped drain openings. Glazed earthenware gullies fixed.
- June 21.—*Saw Mills*. Foul condition of pail closets. Pail closets cleansed.
- June 23.—*Railway Yard*. Dilapidated and unflushed urinal. Urinal repaired and flush provided.
- June 28.—*Contractor*. w.c. unventilated. Ventilation provided.
- June 28.—*Joinery Works*. Insufficient and unsuitable sanitary accommodation. New drain and five self-acting pedestal closets provided.
- June 28.—*Railway Yard*. Foul and unsuitable urinal. New urinal provided.
- July 1.—*Timber Yard*. No sanitary accommodation. Pedestal closet provided.
- July 5.—*Millwright*. Drain choked. Drain opened and cleared.
- July 5.—*Electrical Engineer*. Drains choked. Drains cleared.
- July 11.—*Dressmaker*. Defective drain. Drain repaired.
- July 13.—*Contractor*. Dilapidated w.c. w.c. repaired.

- July 26.—*Dressmaker*. Defective drain. Drain repaired.
- Aug. 3.—*Iron Founder*. No sanitary accommodation. No water supply. Drain and pedestal w.c. provided. City water laid on.
- Sept. 22.—*Dressmaker*. Workroom unfit to be used as such. Workroom closed.
- Sept. 25.—*Saw Mills*. Foul pit closet. No drinking water. Drain and three self-acting closets fixed. City water laid on.
- Oct. 4.—*Engineering Works*. Urinal unflushed. Flushing apparatus provided.
- Oct. 26.—*Painter*. Shop unventilated. Ventilators provided.
- Nov. 6.—*Dyers and Cleaners*. Insufficient ventilation. Fan ventilator fixed.
- Nov. 13.—*Boot Repairer*. Delapidated w.c. w.c. repaired.
- Dec. 6.—*Tin Worker*. Defective w.c. w.c. repaired.
- Dec. 13.—*Contractor*. Drains choked. Drains opened and cleared.

Visits and re-visits	...	...	...	...	...	...	866
Fire Certificates provided	...	...	...	...	...	...	2

PARTICULARS OF NUISANCES DEALT WITH.

Drains wholly or partially re-laid	...	...	...	...	...	20
Foul or broken Water Closet basins	...	...	...	...	...	42
Water Closets and Urinals fitted with flushing apparatus...	...	...	...	...	...	33
Glazed gullies provided	...	...	...	...	...	24
Cleansing and Limewashing	...	...	...	...	...	20
Overcrowding abated	...	...	...	...	...	2
Ventilation secured	...	...	...	...	...	3
City Water provided...	...	...	...	...	...	8
Insufficient Sanitary Accommodation	...	...	...	...	...	14
No Abstract of Factory Act affixed	...	...	...	...	...	20
Workshop unfit for use as such	...	...	...	...	...	1

OUTWORKERS.

Lists received during the year.

Trade	February		August		Total	
	No of. Lists	No of. Outworkers	No of. Lists	No of. Outworkers	Lists	Workers
Boot and Shoe	5	24	5	24	10	48
Wearing Apparel..	16	71	16	77	32	148
	—	—	—	—	—	—
Total	21	95	21	101	42	196
No. of Visits		...	...	95.		

BAKEHOUSES.

The number of Bakehouses in actual use during the year was 77. Several of these are very small and have their ceilings lower than is desirable, but as there is no overcrowding in them, and in other respects they are in a sanitary condition, exception cannot be taken to them. There is only one Bakehouse that is in an unsanitary condition, and this one has been closed pending its being put in proper order.

The number of mechanical mixers have only been increased by one during the year. This is to be regretted, as mechanical mixing is so much cleaner than manual kneading, reducing, as it does, the personal handling of dough to a minimum.

It is satisfactory to be able to state that steam ovens are steadily superseding the old type. A great advantage is gained by this, as the stokehole being generally outside the bakehouse, the dust which unavoidably arises from the raking of the fire is entirely cut off from coming in contact with the flour, which is not the case with ordinary flue ovens.

Cleansing and limewashing receives careful attention.

Where any nuisance or contravention of the Act is found to exist, a verbal request generally suffices to have the matter remedied.

The table appended shows the defects found and remedied :

PARTICULARS OF DEFECTS AND CONTRAVENTIONS.

Contravention of limewashing or general cleansing	...	43
Defective drainage or insufficient Sanitary accommodation	9	
Defective floors, roofs, &c....	... ..	8
Defective ventilation improved	... ..	2
Manure removed	... ..	4
Stables repaired	... ..	3
Water Closets foul or dilapidated	... ..	10
Well Water analysed...	... ..	1
Total defects		80
Number of Visits or Re-visits	... ..	401

J. W. TIBBITTS,

Inspector of Factories and Workshops.

Sanitary Office, Guildhall.

4th January, 1906.

SANITARY OFFICE,
GUILDHALL,
12th January, 1906.

To the Chairman and Members of the Sanitary Committee.

REPORT ON COWSHEDS WITHIN THE CITY.

GENTLEMEN,

Only three Cowsheds are situate within the City. The conditions existing at all three are of a most unsatisfactory character, and not at all favourable to the health of the cattle therein. No provision is made for proper drainage, lighting or ventilation, and the materials of which the buildings are constructed (principally wood) are not such as to allow of proper cleansing.

FARM A.

Shed No. 1.—Wood walls, corrugated iron roof, red brick floor devoid of channel for drainage. The troughs are also constructed of wood, and no provision is made for either light or ventilation.

Stalled for four cows such number being tied up. Air space insufficient.

Shed No. 2.—Wood walls, tiled roof, earth floor in foul condition. The troughs are also constructed of wood, and no provision is made for either light or ventilation.

Stalled for one cow, such being tied up. Air space insufficient.

Shed No. 3.—Wood walls, thatch roof, red brick floor devoid of channel for drainage, wood troughs, no light or ventilation.

Stalled for three cows, one being tied up. Air space insufficient.

Shed No. 4.—Conditions same as No. 3.

Shed No. 5.—Wood walls, tiled roof, red brick floor devoid of channel for drainage, stone troughs, no light or ventilation.

Stalled for four cows, such number being tied up. Air space insufficient.

Shed No. 6.—Wood walls, red brick floor, channel for drainage discharging to floor of No. 5, wood troughs, no light or ventilation.

Stalled for three cows, occupied by one cow and one calf.

The drainage from the above cow sheds finds its way to the yard, thence to a field adjoining. Manure is removed to a field adjoining the road. Fodder is stored in a shed adjoining the cow sheds. The water supply is from the City mains. There is no dairy on the premises, all milk being taken direct away to the customers.

FARM B.

At the above farm two buildings are used as cow sheds

Shed No. 1.—Part brick and wood walls, tiled roof, red brick floor devoid of channel for drainage. Some of the troughs are constructed of stone and some of iron, and no provision is made for light or ventilation.

Stalled for ten cows, such number being tied up.

Shed No. 2.—Wood walls, thatch roof, red brick floor devoid of channel for drainage. Troughs of wood.

Stalled for four cows, such number being tied up. The front of this shed is quite open. The drainage finds its way to the yard, thence to field adjoining. Manure is stored in the yard, which is in a very filthy condition. Water supply from well. Fodder stored in shed adjoining the cow sheds. There is no dairy on the premises, all milk being taken direct away to the customers.

FARM C.

At the above farm two buildings are used as Cow Sheds.

Shed No. 1.—Stone built cart shed, open at front. Rough stone floor devoid of channel for drainage. Troughs constructed of wood. No stalls. Five cows tied up.

Shed No. 2.—Stone building with stone and brick floor devoid of proper channel for drainage. The troughs are constructed of wood, and no provision is made for lighting or ventilation.

Stalled for five cows, four tied up. Drainage to yard, thence by drain to orchard. Fodder stored in shed adjoining cow shed. City water. The dairy is well constructed, lighted and ventilated, and in a cleanly condition.

Yours faithfully,

J. S. FORSTER,

Assistant Inspector of Nuisances.

REPORT OF CANAL BOAT INSPECTOR FOR THE YEAR 1905.

264 Inspections were made.

1. *Registration* :—

There were 12 boats registered and 9 re-registered during the year.

2. *Notification of change of Master* :—

Three notifications of change of Master were received during the year.

3. *Absence of Certificates* :—

There was only one boat on which no certificate was found.

4. *Marking* :—

Three cases of boats not being properly marked were found.

5. *Overcrowding* :—

No case was found in this district.

6. *Separation of Sexes* :—

No contraventions found.

7. *Cleanliness and Ventilation* :—

One boat was repainted under notice, and all had the usual ventilating opening.

8. *Provision of Water Vessels* :—

One boat was inspected and found to have no water vessel ; a notice was served and complied with.

9. *Removal of Bilge Water* :—

Removed daily. All the boats in this district are supplied with pumps.

10. *Infectious Disease* :—

No case found on any boat inspected.

11. *Refusal to admit* :—

No refusal of any kind.

12. *Legal proceedings* :—

None.

13. *Notices* :—

Six notices were served during the year (five in the Gloucester and one in the Stroud district).

14. *Complaints from other districts* :—

Forty-one notices having been received from other districts were at once attended to, and all were remedied forthwith.

15. At present the number of canal boats in use is 171.

(Signed) JOHN OWNER,
Canal Boat Inspector.

SANITARY OFFICE, GUILDHALL.

10th January, 1906.

STATISTICS OF SOME SANITARY WORK DONE DURING THE YEAR 1905.

INSPECTIONS MADE, NOTICES SERVED, HOUSES DISINFECTED, ETC.

Inspections made—Special and Complaint	...	4657	
Ditto Infectious Diseases	... ..	1033	
Ditto House to House	... ..	731	
Ditto Dairies, Milkshops, &c.	... ..	148	
Ditto Slaughter Houses	... ..	140	
Ditto Bakehouses	... ..	401	
Ditto Factories and Workshops	... ..	866	
Ditto Meat and other articles of Food	...	952	
Ditto Marine Stores	... ..	129	
Ditto Offensive Trades	... ..	27	
Ditto Common Lodging Houses	..	719	
Ditto Houses let in Lodgings	... ..	9	
Ditto Smoke observations	.. ..	52	
Ditto „ reports	... ..	34	
		<hr/>	9,898
Notices Served, Preliminary...	... ..	583	
Ditto Statutory	... ..	12	
Notices given, Verbal	... ..	194	
		<hr/>	789
Complaints Received...	... ..	22	
Houses Disinfected	... ..	131	

SANITARY WORK DONE.

New Drains	... ..	133	
Intercepting Traps	... ..	87	
Inspection Chambers	... ..	101	
Air Inlets	... ..	77	
Ventilating Shafts	... ..	111	
Drains cleared	... ..	104	
Sink Waste Pipes disconnected	... ..	45	
Glazed Gully Traps fixed	... ..	401	
Glazed Sink Troughs fixed	... ..	54	
New Soil Pipes fixed	... ..	16	
New Water Closets	.. ..	67	
New Pedestal Basins	... ..	73	
New Hopper Basins	... ..	115	
New Closet Traps	... ..	72	
New Flush-boxes	... ..	107	
Water Closets repaired	... ..	103	
Water Closets cleared	... ..	74	
Flush-boxes repaired...	... ..	120	
Water supply to Water Closets	... ..	102	
New Urinals	... ..	3	
Flush to Urinals	... ..	2	
Urinals cleansed	... ..	9	
House Roofs repaired	... ..	19	
Houses cleansed	... ..	64	
New Spouting	... ..	32	
Carried forward	... ..	<hr/>	2091

Brought forward	...	...	2091
Yard Pavings repaired	...	...	100
City Water laid on	...	...	16
Overcrowding abated	...	...	10
Animals removed	...	...	7
Manure removed	...	...	18
Bakehouses limewashed	...	...	39
Workshops limewashed	...	...	19
Smoke Tests	...	...	641
Water Tests	...	...	162
Chemical Tests	...	...	45
Miscellaneous	...	...	30
Ventilation under Floor	...	...	1
Furnaces repaired	...	...	1
New Lavatories	...	...	2
Gully removed from Bakehouse	...	...	1
Baths lined, &c.	...	...	1
Laterines cleansed, etc.	...	...	1
Chimneys raised, etc.	...	...	3
Cesspits emptied, etc.	...	...	1
Workrooms overcrowded, etc.	...	...	2
Defective water closet removed	...	...	1
Gullies repaired	...	...	5
Pail Closets cleared	...	...	5
Urinals removed	...	...	1
Cesspit filled up	...	...	1
New Lavatory Waste Pipe	...	...	1
New Sinkwater Pipes	...	...	2
New Manure Pits	...	...	1
Urinal ventilated	...	...	1
New Flushing Tanks	...	...	2
Lead Sink and Lavatory Traps	...	...	4
New Door to Water Closet	...	...	1
New Drain connections	...	...	4
Workroom closed	...	...	1
Rainwater Pipes disconnected	...	...	2
Houses closed	...	...	5
Drains disconnected	...	...	2
Workshops ventilated	...	...	3
Vapour Condenser fixed	...	...	1
Well filled up...	...	...	1
Nuisance from offensive pickles	...	...	1
Doors to open outward	...	...	1
Water Closets ventilated	...	...	3
Bakehouse Floor repaired	...	...	1
Stable paved	...	...	1
Windows in Bakehouse	...	...	1
Bakehouse Roofs repaired	...	...	2
New Lavatory Basins	...	...	3
Windows in Water Closet	...	...	1
Drains opened for inspection	...	...	10

City of Gloucester.

STATISTICS FOR 1905.

Area of City as extended in 1900... .. 2315 acres.

New Houses, etc., built in City, 1905—

New Houses	...	...	...	...	...	107
New Shops	...	...	...	...	...	17
Hall	...	...	...	...	...	1
Offices and Gymnasium...	...	...	...	...	...	1
						— 126
Premises re-built	...	...	...	...	...	8
Alterations and Additions	...	...	...	...	...	39
Workshops, etc.	...	...	...	...	...	13
Stables and Sheds	...	...	...	...	...	16
						— 76
						<u>202</u>

Houses supplied with City Water at end of 1904 ... 11,492

Houses supplied with City Water during 1905 ... 126

Total number of Houses supplied with City Water end
of 1905 11,618

Unoccupied Houses 452

R. READ.

CITY SURVEYOR'S OFFICES,

GUILDHALL, GLOUCESTER,

5th January, 1906.

Vital Statistics of Whole District during 1905
and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents regis- tered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
I	2	3	4	5	6	7	8	9	10	11	12	13
1895	... 40426	1301	32·1	223	171·4	812	20·0	...	63	...	749	18·5
1896	... 40722	1235	30·3	202	163·5	1100	27·0	...	25	...	1075	26·4
1897	... 41013	1336	32·6	164	122·8	767	18·7	..	41	...	726	17·7
1898	... 41307	1315	31·8	201	152·8	737	17·8	...	43	...	694	16·8
1899	... 41674	1360	32·6	211	155·1	866	20·8	...	62	...	804	19·3
1900	.. 42021	1298	30·9	155	119·4	743	17·7	57	53	18	708	16·8
1901†	... 48134	1378	28·6	154	111·7	694	14·4	133	66	19	647	13·4
1902	... 48859	1360	27·8	176	129·4	793	16·2	148	53	17	757	15·5
1903	.. 49594	1356	27·3	116	85·5	655	13·2	153	65	13	603	12·2
1904	... 50340	1344	26·7	181	134·6	748	14·9	141	41	27	734	14·6
Averages for years 1895-1904	44409	1328	29·9	178	134·3	791	18·0	...	51	...	750	17·1
1905	... 51098	1381	27·0	167	120·9	763	14·9	141	58	32	737	14·4

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

† First Year of City Extension.

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
General Infirmary Gloucester Workhouse St. Lucy's Home, Hare Lane Two Nursing Homes	Asylums, Wotton and Coney Hill Children's Hospital Barnwood House Asylum Isolation Hospital, Over	St. Bartholomew's Hospital Almshouses, London Road

Area of District in acres (exclusive of area covered by water), 2290.

Total population at all ages,...	...	47,955	} At Census of 1901.
Number of inhabited houses	...	10,098	
Average number of persons per house	...	4·7	

Table II.

Vital Statistics of separate Localities

NAMES OF LOCALITIES		(1) WHOLE DISTRICT.				(2) SOUTH HAMLET.				(3) ST. JOHN THE BAPTIST.	
YEAR		Population esti- mated to middle of each year	Births regis- tered	Deaths at all Ages	Deaths under 1 year	Population esti- mated to middle of each Year	Births regis- tered	Deaths at all Ages	Deaths under 1 year	Population esti- mated to middle of each Year	Births regis- tered
		(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)
1895	..	40426	1301	749	223	22075	722	414	122	8129	1903
1896	...	40722	1235	1075	202	22302	731	738	136	8154	1811
1897	...	41013	1336	726	164	22470	802	382	92	8204	1703
1898 (1)	...	41307	1315	694	201	22660	801	384	113	10985	2865
1899	...	41674	1360	804	211	22887	815	430	112	11083	3011
1900	...	42021	1298	708	155	23081	767	378	92	11179	2955
1901 (2)	...	48134	1378	647	154	28745	832	349	89	10786	2833
1902	...	48859	1360	757	176	29405	846	434	96	10712	2511
1903	..	49594	1356	603	116	30060	841	333	65	10653	2765
1904	...	50340	1344	748	181	30726	849	432	110	10593	2403
Averages of Years 1895-1904 }		44409	1328	751	178	25441	801	427	103	10048	2477
1905	...	51098	1381	737	167	31403	855	451	101	10532	2744

(1) Kingsholm merged into St. John's district.

County Borough of Gloucester.

ities in 1905 and previous years.

APTIST.		(4) ST. NICHOLAS.				(5) KINGSHOLM				(6) BARNWOOD.			
	Deaths under 1 year	Population esti- mated to middle of each Year	Births regis- tered	Deaths at all Ages	Deaths under 1 year	Population esti- mated to middle of each year	Births regis- tered	Deaths at all ages	Deaths under 1 year.	Population esti- mated to middle of each year	Births regis- tered	Deaths at all Ages	Deaths under
	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)
6	29	7549	259	147	45	2673	130	62	...	...	...	...	...
8	34	7573	217	130	23	2693	106	69	...	...	...	...	...
6	23	7627	236	159	35	2712	128	59	...	...	...	...	...
2	51	7662	228	138	37	...	...	...	...	...	...	...	...
3	60	7704	244	161	39	...	...	...	...	...	...	...	...
3	34	7761	236	137	29	...	...	...	...	...	...	...	...
9	31	8136	238	133	32	...	...	...	...	467	25	6	...
1	36	8260	235	157	40	...	...	...	...	482	28	5	...
5	26	8383	220	135	25	...	...	...	...	498	19	2	...
5	38	8507	237	132	32	...	...	...	...	514	18	5	...
9	36	7916	234	143	34	...	...	...	...	...	...	...	...
7	38	8632	227	130	25	...	...	...	...	531	25	9	...

e) First year of City Extension. Barnwood district added.

Table III.

County Borough of Gloucester.

Cases of Infectious Disease notified during
the Year 1905.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.				NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.			
	At all Ages	At Ages—Years.						South Hamlet.	St. John-the-Baptist. (W)	St. Nicholas.	Barnwood.	South Hamlet.	St. John-the-Baptist. (W)	St. Nicholas.	Barnwood.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and up-wards								
Small-pox ... ..	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
Diphtheria	22	...	6	8	3	5	...	16	6	...	..	7	3	...	...
Membraneous Croup	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Erysipelas	25	...	1	...	5	13	6	16	4	5	...	...	...	...	...
Scarlet Fever ...	120	...	33	72	8	7	...	87	18	14	1	74	14	13	1
Typhus Fever ...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...
Enteric Fever ...	18	..	...	3	9	6	...	9	3	6	...	5	1	4	...
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	3	...	...	...	2	1	...	3	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Chicken Pox ...	88	7	42	37	1	1	...	57	23	8	...	...	...	...	...
TOTALS ...	277	7	82	120	28	34	6	189	54	33	1	86	18	17	1

Isolation Hospitals—Field Farm, near Gloucester (Small-Pox only) ; Over, near Gloucester (all other Infectious Diseases). Both outside District (in Gloucester Rural).
Enteric Fever admitted into General Infirmary.

Table IV.

Causes of, and Ages at, Death during Year 1905.

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							DEATHS AT ALL AGES OF "RESI- DENTS" BELONGING TO LOCALI- TIES, WHETHER OCCURRING IN OR BEYOND THE DISTRICT.				DEATHS IN PUBLIC INSTITUTIONS.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards	South Hamlet.	St. John- the-Baptist.	St. Nicholas	Barnwood.	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Measles	18	1	16	1	...	...	...	12	3	3	...	...
Scarlet Fever	6	...	3	3	...	...	...	5	...	1	...	...
Whooping Cough ..	11	5	5	1	...	...	...	8	2	...	1	...
Diphtheria and Membraneous Croup }	1	...	...	1	...	...	...	1	...	...	...	...
Croup	1	...	1	...	...	...	...	1	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Enteric	1	...	...	...	...	1	...	...	...	1	...	1
Other continued...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ...	22	...	...	1	1	9	11	16	2	3	1	...
Diarrhœa (see notes at back)	10	8	2	...	...	...	...	6	2	2	...	...
Enteritis (see notes at back)	15	11	4	...	...	...	...	11	2	2	...	2
Puerperal Fever (See notes at back)	2	...	...	...	2	...	...	2	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Other septic diseases ...	4	...	...	...	1	3	...	4	...	...	...	3
Phthisis	55	1	4	1	14	32	3	31	11	13	...	8
Other tubercular diseases	32	13	13	2	2	2	...	22	4	6	...	4
Cancer, malignant disease (See notes at back)	33	1	...	1	...	16	15	20	9	4	...	11
Bronchitis	78	19	10	...	...	17	32	49	14	13	2	3
Pneumonia	63	15	20	2	4	17	5	37	12	12	2	12
Pleurisy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Other diseases of Respiratory organs }	9	...	...	...	...	5	4	7	1	1	...	5
Alcoholism	5	...	...	...	...	5	...	2	1	2	...	...
Cirrhosis of liver...	5	...	...	...	...	5	...	2	1	2	...	...
Venereal diseases...	3	3	...	...	...	...	...	2	...	1	...	1
Premature birth	31	31	...	...	...	...	...	16	11	3	1	2
Diseases and accidents of parturition }	5	...	...	...	1	4	...	4	...	1	...	2
Heart diseases	57	...	...	1	1	35	20	31	17	9	...	7
Accidents	22	8	2	1	1	7	3	19	3	...	...	6
Suicides	1	...	...	...	...	1	...	...	1	...	...	1

All other causes	252	51	8	10	7	67	109	145	52	53	2	73
ALL CAUSES	737	167	88	25	34	221	202	451	147	130	9	141

NOTES.—(a) In this Table all deaths of “Residents” occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be *included* among the deaths in their respective “Localities” according to the previous addresses of the deceased as given by the Registrars. Deaths of “Non-residents” occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-15 of this Table.

(b) See notes on Table I. as to the meaning of “Residents” and “Non-residents,” and as to the “Public Institutions” to be taken into account for the purposes of these Tables. The “Localities” should be the same as those in Tables II. and III.

(c) All deaths occurring in public institutions situated within the district, whether of “Residents” or of “Non-residents,” are, in addition to being dealt with as in note (a), to be entered in the last column of this table. The total number in this column should equal the figures for the year in column 9, Table I.

(d) The total deaths in the several “Localities” in columns 9-15 of this Table should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of this Table should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.

(e) Under the heading of “Diarrhœa” are to be included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature ; and also deaths certified as from

Epidemic enteritis ;
Zymotic enteritis ;
Epidemic diarrhœa. Summer diarrhœa.
Dysentery and dysenteric diarrhœa.
Choleraic diarrhœa, cholera nostras
(in the absence of Asiatic cholera).

Under the heading of “Enteritis” are to be included those certified as from Gastroenteritis, Muco-enteritis, and Gastric catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, especially those of infants, under the specific term “Diarrhœa.” Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

Under the headings of “Cancer” and “Puerperal fever” should be included all registered deaths from causes comprised within these general terms.

In recording the facts under the various headings of Tables I., II., III., and IV., attention has been given to the notes on the Tables.

Table V.

County Borough of Gloucester.

Infantile Mortality during the Year 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year
ALL CAUSES	Certified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Uncertified	2	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	3
Common Infectious Diseases	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria: Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases.	Whooping Cough	...	...	...	...	...	...	...	...	1	1	...	...	1	1	1	...	5
	Diarrhoea, all forms	...	...	...	...	...	...	1	3	1	...	2	...	1	...	...	...	8
	Enteritis ...	...	...	...	...	...	...	...	1	...	2	...	1	1	...	...	2	7
	(not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gastritis, Gastro-intestinal Catarrh	1	...	1	1	1	4

Wasting Diseases.	Congenital Defects	
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Population estimated to middle of 1905, 51098.

Births in the Year: Legitimate, 1324: Illegitimate, 57.

Deaths from all Causes at all Ages, 763.

LOCAL WEATHER RECORDS.

From readings made at 9 o'clock a.m., by Mr. GEORGE EMBREY, F.I.C., F.C.S., at the City of Gloucester Meteorological Station, The Park, Gloucester.

1905	Temperature In Screen 4 ft. 6 ins. from ground in degree Fahr.			Grass Minimum (Uncovered Bulb on grass)	Solar Radiation. (Solar Temperature.)			Barometer. (Inches.)			Hygrometer. (Percentage of Saturation.)			Sunshine.			Rainfall. Rain Gauge 8 inches diameter, 1 foot above ground.			1905
	Maximum	Minimum	Mean		Maximum	Minimum	Mean	Highest	Lowest	Mean	Highest	Lowest	Mean	No. of Days on which Sun Shone	Greatest amount in one Day	No. of Hours Sunshine during Month	Greatest amount in 24 hours	No. of Days on which .01 of an inch or more fell	Total for Month in inches	
JANUARY ...	55	19	38	18	85	36	57.5	30.93	29.21	30.23	100	59	88	20	Hrs. Mins. 6 30	Hrs. Mins. 68 20	.35	10	1.105	JANUARY
FEBRUARY ...	55	29	42	21	95	43	74.3	30.53	29.14	30.17	100	65	83	24	8 10	84 30	.32	12	.6	FEBRUARY
MARCH ...	63	29	45.7	21	105	59	90	30.34	28.82	29.71	92	67	82.8	29	10 40	169 50	.55	25	3.695	MARCH
APRIL ...	61	29	47	24	107	57	88.2	30.26	29.31	29.85	96	58	79.3	25	11 20	107 32	.305	18	2.5	APRIL
MAY ...	74.5	33	52.4	24	118	84	103.4	30.46	29.31	30.14	93	50	70	30	14	251 30	.09	6	.45	MAY
JUNE ...	80	42	59.7	39	121	64	104.5	30.42	29.73	29.98	93	63	75.2	25	14	201	1.33	18	4.66	JUNE
JULY ...	83	45	64.5	42	129	98	116.7	30.3	29.86	30.11	100	58	67	31	14	281	.57	8	1.045	JULY
AUGUST ...	75	46	60	38	123	79	109.9	30.32	29.39	29.94	100	58.5	75.5	29	12 20	195 40	.87	19	4.83	AUGUST
SEPTEMBER...	73	36.5	54.7	31	116	68	96.3	30.34	29.56	30.01	100	55.5	82.8	28	10	127 10	.66	13	1.86	SEPTEMBER
OCTOBER ...	63	22	45.8	16	97	60	81.8	30.5	29.2	30.05	100	68.5	82	25	8	110 30	.25	13	1.29	OCTOBER
NOVEMBER ...	54	23	40.7	17.5	88	43	65.5	30.18	28.96	29.68	100	70	88.6	17	6	51 40	.56	20	2.67	NOVEMBER
DECEMBER ...	55	27	40	21.	83	42	57.7	30.81	29.35	30.2	100	68	92.4	18	5	51 35	.31	13	.74	DECEMBER
	Mean Temp. for Year 49.2				Mean for Year . . 87.15			Mean Pressure for Year . . 30.0			Mean for Year ... 80			301	No. of hours Sunshine during Year		1700 17	Total...175 days 25.445 ins.		

The highest temperature (83° Fahr.) was recorded on July 8th.
The lowest (19° Fahr.) on January 20th.

The highest pressure was recorded on January 8th (30.93 inches).
The lowest on March 15th (28.82 inches).

Average per day, 4 hours 23 minutes.
Average of the days on which Sun shone, 5 hours 38 minutes.

Greatest Rainfall in one day, 1.33 inches, June 30th.

Gloucester Port Sanitary Authority.

REPORT

OF THE

PORT MEDICAL OFFICER OF HEALTH

FOR 1905.

ORDERED TO BE PRINTED.

TO THE SANITARY COMMITTEE
OF THE
GLOUCESTER PORT SANITARY AUTHORITY.

GENTLEMEN,

In presenting the Report for 1905, I am glad to be able to report that no case of infectious disease has been introduced into the Port by the ships (280) coming “foreign.” This is very satisfactory, especially if one considers the special situation of a port as regards its liability to infection.

A port is a spot towards which lines of communication converge from various parts of the world ; therefore, by means of the shipping, a direct personal communication, through the crews and others on board, is established between the inhabitants of widely separated countries. Coasting vessels can only be the means of bringing to the port diseases already prevalent in the country, but vessels coming “foreign ” might be the means by which diseases are introduced into this country, which otherwise would not reach us, *e.g.*, Plague and Cholera. Considering this, it is a wise policy on the part of a Port Sanitary Authority to take every precaution possible, although it may not at the time seem necessary to be so careful. It is far better to incur some expense in taking steps to prevent the importation of disease than to have to deal with an outbreak due to some case that has been overlooked from want of care.

By an Order of the Local Government Board, issued in 1894, the Mayor, Aldermen and Citizens of the City of Gloucester, acting by the Council as the Urban Sanitary Authority, were permanently constituted the Port Sanitary Authority for the Port Sanitary District of Gloucester.

By the same Order it was directed that the following Riparian Authorities should contribute towards the expenses incurred by the Port Sanitary Authority :--

The Gloucester Urban Sanitary Authority	...	45 %
The Dursley Rural Sanitary Authority	...	3 %
The Gloucester Rural Sanitary Authority	...	15 %
The Thornbury Rural Sanitary Authority	...	30 %
The Wheatenhurst Rural Sanitary Authority...		7 %

The jurisdiction of the Port Sanitary Authority extends over an area which may shortly be described as comprising the Docks at Gloucester and Sharpness with the Gloucester and Berkeley Canal, and the eastern side of the waterway from Sharpness to the site of the Severn Tunnel, where the Port of Bristol begins. The Authority's jurisdiction also extends over the places appointed as Customs Boarding Stations, or as mooring or anchorage stations, for the purpose of preventing the spread of disease, and also extends to any ship directed to be moored or anchored there, or which is on its way to such stations.

As the deep water channel to the Port of Gloucester passes through Kingroad, and as anchorage is dangerous outside the entrance to the Port of Gloucester, the responsibility of dealing with Cholera, Plague and Yellow Fever in Gloucester-bound ships was placed by Local Government Order of 24th April, 1897, upon the Bristol Port Sanitary Authority.

After conferences held in 1904 and 1905 between representatives of the Bristol and Gloucester Port Sanitary Authorities, a revised scale of charges was agreed to for the

services to be rendered by the Bristol Port Sanitary Authority as regards the inspection of Gloucester-bound vessels from time to time, and the dealing with such vessels if infected, and the removal and treatment of any infected persons found thereon ; the question as to the vessels to be inspected to be arranged by the two Authorities from time to time, having regard to the prevalence of disease and other circumstances.

In accordance with this agreement the Bristol Port Sanitary Authority have from May 23rd to December 31st, 1905, dealt with 111 vessels as follows :—

Eighty-eight vessels were visited and spoken by the Bristol Port Sanitary launch in Kingroad, and 23 vessels from suspected ports (Plague and Cholera) were inspected in detail.

The Port Inspector and Assistant Port Inspector are stationed at Sharpness Docks, and they inspect all vessels coming “foreign.” The large number of vessels (2,698) coming coastwise are also examined from time to time, and during the year no case of infectious disease was found on them.

A Hospital with five beds has been erected, by courtesy of the Dock Company, at Sharpness Docks, at which a caretaker resides, so that cases can be at once removed from aboard ships if deemed desirable. And near the Gloucester Docks, also by permission of the Company, a temporary pavilion for 10 beds in two wards, together with the necessary laundry, etc., has been erected, which would be available should any special need arise, and if the cases could not be treated in the City Isolation Hospitals.

PLAGUE. The prevalence of this disease in various parts of the world, especially in India, has entailed the taking of special precautions in the case of ships coming from such parts. In the case of 27 ships arriving at Sharpness, it was thought advisable after the discharge of the cargo to fumigate them by means of “sulphur candles”; all rats destroyed being cremated in the ship’s furnace.

CHOLERA. In September, cases being reported to have occurred in certain places on the shores of the Baltic Sea, and in parts of Russia, the Local Government Board issued a circular on the subject advising that "the Authorities of British Ports trading with the Baltic and North Sea Ports should therefore be on their guard against the importation of Cholera into their districts by means of vessels coming from such ports."

Special precautions were put in force for a time, until it seemed apparent that the Cholera was checked and no fresh cases were reported at the ports from which vessels were coming to the Port of Gloucester.

After consultation with the Chairman and Deputy Clerk to the Pilotage and Harbour Commissioners for the Port of Gloucester, their pilots were supplied with a revised set of regulations as to Cholera, Yellow Fever and Plague, and as to special day and night signals to be hoisted by ships bringing-to for inspection in Kingroad.

The Bristol Steam Navigation Company, whose steamers come to Gloucester Docks from Hamburg and Antwerp, and who employ their own pilots, gave the necessary instruction to their captains.

The General Manager of the Sharpness Docks Company also gave us assistance by arranging that the Bristol Port Medical Officer of Health should be notified of the expected arrival of special ships.

Although I am glad to be able to report that at present no special precautions need be taken on account of the Cholera, it must be borne in mind that we must keep prepared for the great probability of a recrudescence of Cholera on the Continent during 1906, when continued watchfulness will again be required.

On December 5th a telephone message was received from the Bristol Port Medical Officer of Health to the effect that he had learnt that a sailor, one of the crew of the s.s. Atalanta, had died at Swansea from Typhoid Fever, and that it appeared that he went to Swansea from Bristol on December 2nd, and that the Atalanta had left Bristol and was now at Gloucester. Enquiries were at once made, and the rest of the crew were found in good health. The deceased's clothing, etc., were disinfected by steam and his bunk thoroughly cleansed. The water tanks were emptied and refilled with City water.

Your obedient Servant,

W. M. HOPE, D.P.H.,

Port Medical Officer of Health.

LIST OF SHIPS COMING "FOREIGN" INSPECTED AT SHARPNESS.

From						Steam	Sailing	
Alexandria	...	...	...	...	...	7	...	
Antwerp	...	...	...	...	...	15	...	
Apatachicola	...	...	...	...	...	1	...	
Archangel	...	...	...	...	...	13	...	1
Bahai Blancha	...	...	...	...	...	8	...	1
Beldan	...	...	...	...	...	1	...	
Benghaze	...	...	...	...	...	1	...	
Berchansk	...	...	...	...	...	1	...	
Bombay	...	...	...	...	...	3	...	
Buenos Ayres	...	...	...	...	...	7	...	1
Caen	...	...	...	...	...	1	...	
Calcutta	...	...	...	...	...	3	...	
Chatham, N.B.	...	...	...	...	...	2	...	
Christiana	...	...	...	...	...		...	1
Civita Vecchia	...	...	...	...	...		...	2
Colastine	...	...	...	...	...	1	...	
Conception	...	...	...	...	...		...	2
Cronstadt	...	...	...	...	...	3	...	
Dantzic	...	...	...	...	...	1	...	
Domsjo...	...	...	...	...	...	2	...	
Drammen	...	...	...	...	...	3	...	
Enpatozia	...	...	...	...	...	1	...	
Faro	...	...	...	...	...		...	1
Fecamp	...	...	...	...	...	1	...	
Genoa	...	...	...	...	...		...	1
Ghenitchesk	...	...	...	...	...	3	...	
Gibraltar	...	...	...	...	...	1	...	
Gillisport	...	...	...	...	...	1	...	
Granvick	...	...	...	...	...	1	...	
Gulf Port	...	...	...	...	...	1	...	
Halifax	...	...	...	...	...	1	...	
Hamburg	...	...	...	...	...	40	...	
Havre	...	...	...	...	...	1	...	
Helsingfors	...	...	...	...	...	1	...	
Hudickoall	...	...	...	...	...	5	...	
Karrachi	...	...	...	...	...	5	...	
Keret	...	...	...	...	...	1	...	
Kerui	...	...	...	...	...	2	...	
Kherson	...	...	...	...	...	1	...	

From						Steam		Sailing
Koerrigsberg ...	...	...	...	...	...	2	...	2
Kotka ...	...	...	...	...	...	1	...	
Kustendjie ...	...	...	...	...	...	1	...	
Legue ...	...	...	...	...	...	1	...	1
Libau ...	...	...	...	...	...	6	...	
Marianople ...	...	...	...	...	...	6	...	
Matane...	...	...	...	...	...	1	...	
Mazagan ...	...	...	...	...	...		...	1
Mezane...	...	...	...	...	...	2	...	
Mobile ...	...	...	...	...	...	1	..	
Monte Video ...	..	...	...	...	...		...	1
Montreal ...	...	...	...	...	...	1	...	
New Mills, N.B.	...	...	...	...	...		...	1
Nicolaieff ...	...	...	...	...	...	5	...	
Norkopping ...	...	...	...	...	...		...	1
Novorossick ...	...	...	...	...	...	2	...	
Nyhamn ...	...	...	...	...	...	1	...	
Odessa ...	...	...	...	...	...	7	...	
Onega ...	...	...	...	...	...	2	...	
Oporto ...	...	...	...	...	...		...	2
Parana ...	...	...	...	...	...	1	...	
Parrsboro, N.S.	...	...	...	...	...		...	1
Pascagoula ..	...	...	...	...	...	1	...	
Pitea ...	...	...	...	...	...	1	...	
Poragrund ...	...	...	...	...	...		...	1
Quebec ...	...	...	...	...	...	2	..	
Quimper ...	...	...	...	...	...		...	1
Riga ...	...	...	...	...	...	5	...	
Rosario ...	...	...	...	...	...	20	...	2
Rouen ...	...	...	...	...	...	3	..	
Saffi ...	...	...	...	...	...	1	...	
Salonica ...	...	...	...	...	...	1	..	
San Antonio ...	...	...	...	...	...		...	1
San Francisco	...	..	...	...	...		...	1
Seroka ...	...	...	...	...	...	1	...	
Skelleftea ..	...	..	...	...	...	1	...	
St. Brieue ...	...	...	...	...	..		..	1
St. John's, N.B.	...	...	...	...	...	6	...	
St. Valery ...	...	...	...	...	...		..	1
Sulina ...	...	..	...	...	...	2	...	
Sundsvall ...	...	...	...	...	..	3	...	2
Taganrog ...	...	...	...	...	...	1	..	

From						Steam	Sailing
Tamea ...	...	...	...	...	...	1	...
Tijusne	...	...	...	...	...	1	...
Theodosia	...	...	...	...	...	5	...
Trangsund	...	...	...	...	..	3	...
Treport	...	...	...	...	...	2	1
Uleabergh	...	...	...	...	...	2	...
Valparaiso	...	...	...	...	...	1	1
Villa Constitucion	..	...	...	...	...	1	...
Wallaroo	...	...	...	...	...	...	1
West Bay	...	...	...	...	...	1	...

THE FOLLOWING PARTICULARS AS TO THE SANITARY CONDITION, &c.,
OF THE VESSELS ARE TAKEN FROM THE INSPECTOR BOOK :—

Sanitary condition of fore-castle and living spaces	...	...	...	Good
Lighting	...	...	...	Good
Ventilation	...	...	..	Good
Foul bilges and deposits	...	...	...	None
W.c.'s and paint rooms connected with living spaces			...	None
Condition of w.c.'s	...	...	...	Good
Iron decks and plates requiring to be lined	...	...	...	None
Leakages into living spaces	...	...	..	None
Condition of drinking water and vessels for same	...	...	...	Good
Overcrowding	...	...	...	None

SUMMARY FOR 1905.

The total number of Vessels which arrived here from Foreign Ports for the year 1905 was 280, made up as under :—

Steamers	...	...	247
Sailing Vessels	...	...	33
British Vessels	...	...	186
Foreign Vessels	...	...	94
Vessels coming "Coastwise"	...	...	2698.

There has been no sickness on board any ship during the year.

F. G. FIELD,
Port Inspector.

